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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,799	12/12/2001	Jeffrey Kaiser	213745	9141

23460 7590 06/21/2004

LEYDIG VOIT & MAYER, LTD
TWO PRUDENTIAL PLAZA, SUITE 4900
180 NORTH STETSON AVENUE
CHICAGO, IL 60601-6780

EXAMINER

BRINEY III, WALTER F

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 06/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/017,799

Applicant(s)

KAISER ET AL.

Examiner

Walter F Briney III

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7-9,11-13 and 15-33 is/are pending in the application.
- 4a) Of the above claim(s) 16-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7-9,11-13,15 and 23-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2,3</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of claims 1, 3-5, 7-9, 11-13, 15, and 23-33 in the telephone conversation with Phillip Pippenger, on 01 June 2004, is acknowledged.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3, 4, and 23-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Drew (US Patent 6,546,100).

Claim 1 is limited to **a line conditioner for a bi-directional electrically conductive voice transmission medium usable for both voice-band and high-frequency digital transmission**. Drew discloses a modified load coil device that allows loaded telephone lines to transmit both xDSL and POTS signals (abstract). The device includes a pair of telephone conductors (figure 5, element 12) to which two separate groups of components are attached. Drew discloses **a first component group having a first inductor** (figure 5, element 52) **connected in parallel to a first capacitor** (figure 5, element 46), **and a first surge protector** (figure 5, element 60)

connected in parallel to the first capacitor. As seen from the figure, **the first component group** is connected to one of the conductors labeled as element 12 (i.e. **being connectable in series with a first conductor of the transmission medium**). Drew discloses a **second component group having a second inductor** (figure 5, element 54) **connected in parallel to a second capacitor** (figure 5, element 58), and **a second surge protector** (figure 5, element 62) **connected in parallel to the second capacitor.** As seen from the figure, **the second component group** is connected to the other one of the conductors labeled as element 12 (i.e. **being connectable in series with a second conductor of the transmission medium**). Drew discloses transmitting xDSL and POTS signals over the lines connected to these component groups (i.e. **whereby when the first and second component groups are connected in series with the first and second conductors respectively, the transmission medium is conditioned to permit the high-quality transmission of voice-band signals and high-frequency digital signals**) (abstract). Therefore, Drew anticipates all limitations of the claim.

Claim 3 is limited to **the line conditioner according to claim 1**, as covered by Drew. Drew discloses that the conductors labeled as element 12 of figure 5, are long twisted pair telephone lines (i.e. **wherein the bi-directional electrically conductive voice transmission medium comprises a twisted pair cable**) (abstract). Therefore, Drew anticipates all limitations of the claim.

Claim 4 is limited to **the line conditioner according to claim 1**, as covered by Drew. Drew discloses passing ADSL signals along the conductors connected to the

component groups (i.e. **wherein the high frequency digital signals conform to the ADSL protocol**) (abstract). Therefore, Drew anticipates all limitations of the claim.

Claim 23 is limited to a **line conditioner for a bi-directional electrically conductive voice transmission medium usable for both voice-band and high-frequency digital transmission**. Drew discloses a modified load coil for use with both POTS and xDSL signals (abstract). Drew discloses a **first component group having a first inductor** (figure 5, element 52) **of about 22mH inductance** (column 2, lines 19-22) **connected in parallel to a first capacitor** (figure 5, element 46) **of about 0.1 μ F capacitance** (column 3, lines 14-15), **the first component group being connectable in series with a first conductor of the transmission medium** (figure 5, upper connection of 12). Drew discloses a **second component group having a second inductor** (figure 5, element 54) **of about 22mH inductance** (column 2, lines 19-22) **connected in parallel to a second capacitor** (figure 5, element 58) **of about 0.1 μ F capacitance** (column 3, lines 14-15), **the second component group being connectable in series with a second conductor of the transmission medium** (figure 5, lower connection of 12). Therefore, Drew anticipates all limitations of the claim.

Claim 24 is limited to **the line conditioner according to claim 23**, as covered by Drew. Drew discloses resistors (figure 5, elements 60, 62) that will serve to limit the current to the chokes, and thus provide a certain degree of **surge protection**. It is clear that the resistors are in parallel with the capacitors (figure 5, elements 46,58). Therefore, Drew anticipates all limitations of the claim.

Claim 25 is limited to **the line conditioner according to claim 23**, as covered by Drew. Drew discloses connecting the load coil to a **twisted pair cable** (abstract). Therefore, Drew anticipates all limitations of the claim.

Claim 26 is limited to **the line conditioner according to claim 23**, as covered by Drew. Drew discloses that **the high frequency digital signals conform to the ADSL protocol** (abstract). Therefore, Drew anticipates all limitations of the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 7-9, 11-13, 15, and 27-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drew in view of Swart (US Patent 2,403,468).

Claim 31 is limited to **a method of making a transmission line conditioner device for installation on a voice-band transmission medium**. The resulting device is shown in claim 23, as covered by Drew. The examiner takes Official Notice of the fact that placing electrical components together is well known, and that it would have been obvious to one of ordinary skill in the art at the time of the invention to build the device of Drew for the purpose of providing a load coil that is compatible with DSL. Drew does not disclose the type of casing or structure that the modified load coil is to be situated in. Therefore, Drew makes obvious all limitations of the claim with the

exception of **encasing the component groups in a package so that the respective input connections and respective output connections are conductively accessible from outside of the package to create a transmission line conditioner device.**

Swart teaches a load coil casing that provides external connections (figure 2, elements 62, 64) and a protective shell including overvoltage protection elements (figure 1, element 70). It would have been obvious to one of ordinary skill in the art at the time of the invention to build the load coil device of Drew into a protective casing as taught by Swart for the purpose of providing easy connection, and protection from physical handling as well as lightning.

Claim 32 is limited to **the method according to claim 31**, as covered by Drew in view of Swart. Drew discloses resistors that will provide a small degree of surge protection, however, they are not in parallel with the entirety of their respective component groups. Therefore, Drew anticipates all limitations of the claim with the exception of **a surge protector in parallel with the inductor and a capacitor of each component group**. Swart teaches a method of reducing lightning effects on load coils by including short circuit paths (figure 1, element 70) for each load coil in a system (column 2, lines 3-18). These paths shunt high-voltage through a dielectric medium to avoid damaging the load coils. They are clearly in parallel with the inductors, and, likewise, would be in parallel with the capacitors disclosed by Drew (column 3, lines 41-55). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the short-circuiting paths as taught by Swart for the purpose of preventing damage to the load coils in the presence of lightning.

Claim 33 is rejected for the same reasons as claim 25.

Claims 27-30 are essentially the same as claims 31-33 and 26, respectively, and are rejected for the same reasons.

Claims 5, 7 and 8 are rejected for the same reasons as claims 32, 29, and 30, respectively.

Claim 9 is essentially the same as claim 5, however, includes a further limitation of **locating a load coil device installed on the transmission line**. The examiner takes Official Notice of the fact that replacing or upgrading a circuit element by first locating it is well known. It would have been obvious to one of ordinary skill in the art at the time of the invention to first locate a load coil on a line that is meant to carry DSL for the purpose of upgrading that line with the modified load coils of Drew.

Claims 11 and 12 are essentially the same as claims 7 and 8, respectively, and are rejected for the same reasons.

Claim 13 is rejected for the same reasons as claim 31.

Claim 15 is essentially the same as claim 33.

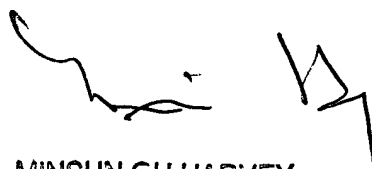
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter F Briney III whose telephone number is 703-305-0347. The examiner can normally be reached on M-F 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W Isen can be reached on 703-305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WFB
6/4/04



MINSUN CH HARVEY
PRIMARY EXAMINER